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November 10, 2004

Mr. Nabil S. Fayoumi
U. S. EPA - Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3590

Re: Sauget Sites Area I - January 21, 1999 Administrative Order by Consent (AOC)
Monthly Report October 1 – October 31, 2004

Dear Mr. Fayoumi,

Enclosed is the Sauget Sites Area I **Monthly** Report for the October 2004 reporting period. This submittal is in fulfillment of the monthly requirements of Section 2.4 Reporting, of the January 21, 1999 Final Administrative Order by Consent for Sauget Sites Area I, Sauget and Cahokia, Illinois.

Sincerely,

Steven D. Smith
Project Coordinator

cc: Kevin Turner – USEPA
Tim Gouger - USACE
Sandra Bron - IEPA
Dave Webb - IDPH
Mike Coffey - USF&W
Richard Williams - Solutia
Cathleen Bumb - Solutia
Mayor Frank Bergman - Cahokia, IL
Village of Sauget - c/o P. H. Weis & Associates (Attn: Brian Nelson)
Mayor R. Sauget - Sauget, IL
L. Glen Kurowski - Monsanto
Linda Tape - Husch & Eppenberger

Sauget Sites Area I - Sauget, Illinois

AOC - EECA / RIFS

Status Report

Date of Report: November 10, 2004
Period Covered: October 1, 2004 - October 31, 2004

Work Performed during the Reporting Period

Borrow Pit Lake

No work was performed on the Borrow Pit Lake during the reporting period.

Dead Creek

No work was performed during the reporting period.

DNAPL Investigation

The final DNAPL Investigation Work Plan was submitted to the Agencies on April 20, 2004. The schedule for completion of the study, originally set for June 23, 2004, was revised to December 17, 2004. Due to the additional requirement for the preparation of a "Summary Report with Proposed Locations for Soil Borings / Piezometers," and review and approval of this document, the current schedule for completion is now forecasted for January 21, 2005.

Field work began on Task 2 of the Work Plan on May 10, 2004. This task required the surveying of approximately 57 existing wells for the presence of NAPL and, if detected, the sampling of any such material. Of the original 57 wells designated for inspection and survey, 54 were found to be usable. One well had been destroyed and two wells were damaged to the extent that down-hole tools could not be used in the wells. The well survey was completed on May 20, 2004.

Non-aqueous phase liquids were detected in three of the 54 wells. One of these wells contained recoverable amounts of LNAPL and a sample of the material was obtained for physical characterization and chemical testing. The other two wells, both bedrock installations, contained some evidence of the presence of DNAPL, although neither well contained recoverable quantities.

Field activities for Task 3, the seismic reflection survey, began on June 7th and were completed on June 30th. Limited clearing operations at Site G along the pathways of the seismic survey grid were necessary because the site is heavily vegetated. The clearing operations were conducted between June 24 and June 26. During the work, the contractor encountered two very small areas with surficial waste materials, which were then inspected and the findings discussed with the US EPA. It was agreed that the waste materials would be sampled and that a temporary cover would be placed over the areas. Samples were obtained on July 1st and the unvalidated results of the laboratory analyses of these samples were reported to the Agency on July 29th. Validated results were submitted on August 11, 2004. The temporary covers were constructed on July 7th and July 8th. Both covers consist of a synthetic membrane covered by approximately one foot of clean soil.

The field notes from an investigation carried out in 1999 that were used by the Corps of Engineers (COE) to construct a table showing widespread DNAPL throughout the area were reviewed as part of the evaluation of the historical data on the possible occurrence of DNAPL in Area 1. A report summarizing the results of that review was submitted to the Agency on August 6th. The major conclusion in the report was that the only credible evidence of the occurrence of NAPL in Area 1 at that time was in well EE-11 on Site G. This conclusion was confirmed during Task 2 of the present investigation.

A report summarizing the results of the existing well survey and the preliminary results of the geophysical survey was submitted to the EPA on August 13, 2004. Based on the preliminary interpretation of the bedrock topography from the seismic investigation data, the report also included proposed locations for 18 new wells to be installed during Task 4 of the investigation. Some of these proposed locations were revised on August 23rd in response to minor changes in the interpretation of the bedrock surface topography. A meeting was held with the Agency on August 24th to discuss the proposed well locations and as a result of discussion during the meeting, three of the locations were changed. At the end of the meeting, the Agency gave verbal approval to begin well installation. Formal approval was contained in a letter dated September 16, 2004. That letter also contained comments on the summary report and on the report summarizing the results of the review of the field notes from the 1999 investigation. The summary report was revised to address the comments and the revised report was submitted to the Agencies on September 30, 2004. The responses to the comments on the review of the 1999 field notes will be submitted with the final DNAPL report.

A revised well location plan was submitted to the Agencies on September 3, 2004 and well installation began on September 10. Four wells were installed during the first 10-day work rotation and no evidence of free phase liquids was observed during drilling at these locations. However, differences between the measured bedrock elevations and those predicted from the seismic reflection survey data were evident. The measured elevation was two to three feet lower than the predicted value at one location, but was between 10 and 35 feet higher at the other three locations. Because of these large differences, it was decided to use the measured bedrock depths from as many locations as possible to refine the interpretation of the bedrock surface topography. The revised

bedrock surface interpretation was submitted to the Agencies on October 7th, together with recommendations for changes to the proposed locations of two of the wells. These changes were approved by the Agency on October 8th.

Installation of all 18 new wells was completed on October 14th. Of these, one well on Site I and one on Site G showed visual evidence of DNAPL within the fill material and underlying aquifer matrix. As a result, one of the proposed well locations was moved to a location topographically downgradient of the Site G well. Another well had already been installed topographically downgradient of the Site I well.

A NAPL survey of the eleven newly installed wells was performed on September 30. There were no interface probe indications of DNAPL at any of the eleven locations. There was no visual evidence of DNAPL on the interface probe tip, no staining of a weighted cotton string that was lowered to the bottom of the wells, and no staining, sheen, or free product in the clear bailers lowered to the bottom of the wells.

Field activities for Task 5, NAPL survey and recovery tests, were completed on October 30th. Recoverable quantities of NAPL were only encountered in one well, BR-I on Site I, and sufficient sample was collected to perform all of the analyses specified in the Work Plan.

The results of the analyses performed on the LNAPL sample obtained in well EE-11 on Site G during the initial well survey were submitted to the Agency on October 27, 2004.

Attachments

There are no Technical Memoranda or data submitted with this report.

Work Scheduled for Next Reporting Period

- Begin treatability tests on the DNAPL sample from well BR-I.
- Finalize the report of the geophysical survey.

Submittal Schedule Status

No submittals are planned during the next reporting period.